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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GANESH PALWE and DEBASHISH PAUL

Appeal 2016-001762
Application 12/483,583[1]
Technology Center 2100

Before MASHID D. SAADAT, JOHN P. PINKERTON, and JOYCE CRAIG, *Administrative Patent Judges*.

PINKERTON, *Administrative Patent Judge*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 3, 5, 8–12, 14–24, and 26–31, which are the only claims pending in the application. Claims 2, 4, 6, 7, 13, and 25 are canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] Appellants identify Adobe Systems Incorporated as the real party in interest. App. Br. 4.

STATEMENT OF THE CASE

Introduction

Appellants' disclosed and claimed invention is generally directed to providing "an assistant application that provides a user interface that can allow a user of a computing device to utilize advanced features of the device without requiring excessively complex navigation or input." Spec. ¶ 5.[2]

Claim 1 is representative and reproduced below (with the disputed limitations *emphasized*):

1. A method, comprising:

receiving, by an assistant application executed by a processor of a device, natural language input;

evaluating, by the assistant application, the natural language input to identify a plurality of applications available to the device, wherein the plurality of applications comprise *at least one application that provides an interface, wherein the interface is specific to the at least one application* and *is not displayed while the natural language input is received*;

determining, by the assistant application, a plurality of suggested commands available to the device based on evaluating the natural language input, wherein each command of the plurality of suggested commands is executable by at least one respective application of the plurality of applications, wherein the plurality of suggested commands comprises at least one suggested command for execution *by the at least one application having the interface that is not displayed while the natural language input is received*;

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[2] Our Decision refers to the Final Action mailed Dec. 31, 2014 ("Final Act."); Appellants' Appeal Brief filed July 10, 2015 ("App. Br.") and Reply Brief filed Nov. 24, 2015 ("Reply Br."); the Examiner's Answer mailed Sept. 24, 2015 ("Ans."); and the original Specification filed June 12, 2009 ("Spec.").

providing, by the assistant application, output at the device comprising the at least one suggested command; and

invoking the at least one application responsive to receiving a selection of the at least one suggested command, wherein invoking the at least one application comprises *displaying the interface for the at least one application at the device and performing the at least one suggested command using the interface*.

Rejections on Appeal

Claims 1, 3, 8–11, 14–16, 18–21, 27, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Hodjat et al. (US 2006/0229889 Al; published Oct. 12, 2006) ("Hodjat").

Claims 5, 12, and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hodjat in view of Kennewick et al. (US 7,693,720 B2; issued Apr. 6, 2010) ("Kennewick").

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hodjat in view of Gurram et al. (US 2006/0206336 A1; published Sept. 14, 2006) ("Gurram").

Claims 23, 24, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hodjat in view of Johnson (US 5,748,974; issued May 5, 1998).

Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hodjat in view of Garcia et al. (US 2009/0248397 A1; published Oct. 1, 2009) ("Garcia").

Claims 28 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hodjat in view of Chakrabarti et al. (US 8,301,623 B2; issued Oct. 30 , 2012) ("Chakrabarti").

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments in the Briefs (App. Br. 8–36, Reply Br. 2–13) and are not persuaded the Examiner has erred. Unless otherwise noted, we adopt as our own the findings and reasons set forth by the Examiner in the Office Action from which this appeal is taken (Final Act. 2–15) and in the Examiner's Answer (Ans. 17–34), and we concur with the conclusions reached by the Examiner. For emphasis, we consider and highlight specific arguments as presented in the Briefs.

Rejection of Claims 1, 3, 8, 10, 11, 14–16, 18–21, and 31 under § 102(b)[3]

Appellants contend that "Hodjat does not disclose evaluating natural language input to ***identify an application having an interface that is not displayed while the natural language input is received***, determining a suggested command for the application based on the natural language input, and performing the suggested command ***using the application's interface*** in response to receiving a selection of the suggested command," as required by independent claim 1, and as similarly required by independent claims 11 and 20. App. Br. 10, 14–16; Reply Br. 2–8. In particular, Appellants argue "Hodjat apparently discloses receiving input at an interface and using the same interface to present data from different back-end applications that may correspond to the received input," and "by relying on the same interface for communicating data from different back-end applications, fails to provide a user with the option of using interface features specific to different

[3] We decide the rejection of claims 1, 3, 8, 10, 11, 14–16, 18–21, and 31, which are rejected under the first-stated ground of rejection, on the basis of representative claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

applications, unlike the invention of claims 1, 11, and 20." App. Br. 14–15; Reply Br. 2. Appellants also argue the Examiner erred by asserting an unreasonably broad construction of the limitation "[an] interface [that] is specific to the at least one application," which a person of ordinary skill in the art would interpret as "a computer program that allows a user to interact with a computer application and that is restricted to interacting with that particular application." Reply Br. 3–5. According to Appellants, "the Hodjat interface cited by the Examiner is a computer program that allows a user to interact with ***multiple back-end applications***, rather than restricting the user to ***interacting with a particular application***." *Id.* at 5. Appellants further argue "Hodjat also fails to disclose that the interface depicted in Hodjat FIG. 9 ***is not displayed while the natural language input is received***." App. Br. 15.

We are not persuaded by Appellants' arguments that the Examiner has erred. Regarding claim construction, we note that the disputed limitations of claim 1 contain several references to the term "interface," which is discussed in the Briefs as "the interface for the at least one application:"

- wherein the plurality of applications comprise *at least one application that provides an interface, wherein the interface is specific to the at least one application*
- the plurality of suggested commands comprises at least one suggested command for execution *by the at least one application having the interface that is not displayed while the natural language input is received*
- wherein invoking the at least one application comprises *displaying the interface for the at least one application at the*

> *device and performing the at least one suggested command using the interface.*

The Examiner finds that "[n]owhere in Appellants' Specification is 'the interface for the at least one application' described in a limiting way that would limit an application to only be able to display information from it through a separate graphical user interface that is operated completely independently of the 'application/OS interface 306.'" Ans. 18 (citing Spec. ¶¶ 46, 52, 53). The Examiner also finds

> that the claimed step of "invoking the at least one application comprises displaying the interface for the at least one application at the device" is performed by invoking data and services from the at least one application in order to modify the presently displayed graphical user interface to display an "interface for the at least one application" as part of the modified graphical user interface, wherein this modified graphical user interface is "specific" to the at least one application, because it specifically contains specific data and services of the at least one application.

Id. at 19.

For the reasons stated by the Examiner, we agree with the Examiner's conclusion that the broadest reasonable construction of the limitations "the interface is specific to the at least one application" and "the interface for the at least one application" is the graphical user interface displayed for the application invoked by selecting the suggested command. We are not persuaded by Appellants' proposed construction — "a computer program that allows a user to interact with a computer application and that is restricted to interacting with that particular application"—because it attempts to add limitations that do not appear in the disputed claim limitations. S*ee In re Self*, 671 F.2d 1344, 1348 (CCPA 1982)

("[A]ppellant's arguments fail from the outset because . . . they are not based on limitations appearing in the claims."). For the same reason, we are not persuaded by Appellants' argument that "the interface must also be ***provided by the invoked application***." *See* Reply Br. 3–4 (emphasis added). Instead, the invoking limitation recites "wherein invoking the at least one application comprises *displaying the interface for the at least one application at the device and performing the at least one suggested command using the interface*," which does not require the application to exclusively "provide" the interface, without use, for example, of an interaction agent as in Hodjat. (emphasis added).

The Examiner finds, and we agree, that Hodjat discloses evaluating the natural language input to identify "at least one application that provides an interface, wherein the interface is specific to the at least one application" and responsive to selecting a command, "displaying the interface for the at least one application at the device and performing the at least one suggested command using the interface." Ans. 19–20 (citing Hodjat Figs. 9, 10, ¶¶ 152–157). In particular, the Examiner finds paragraph 153 of Hodjat discloses that, if the hint "map John Smith's address" is selected by the user, "[t]he Actuation Agent 112 will issue the appropriate command and return the map image response to the user via the interaction agent 110." *Id.* at 19. The Examiner finds paragraph 153 of Hodjat also discloses that, alternatively, "the system may produce a 'map' icon for the Context Ribbon 924 . . . [and] if selected by the user, the system will bring up a form for a map object, including one or more fillable fields," with the "address" field having "its value pre-filled with John Smith's address as returned from the most recent user interaction." *Id.* at 19–20. Thus, the Examiner finds, and

we agree, "[t]he displaying of the 'map image' and 'additionally . . . a form for a map object' sent from the back-end mapping application sufficiently corresponds to the displaying of an interface of the mapping application." *Id.* at 20.

We are not persuaded by Appellants' argument that because Hodjat uses an interaction agent that is separate from the back-end applications, Hodjat uses a "single" or "common" interface, or an interface that is not specific to the invoked application. Reply Br. 2–4. As Hodjat discloses, although selection of a command by the user causes an actuation to be sent to the Actuation Agent 112, the Actuation Agent invokes the appropriate application and returns the corresponding interface for that application. *See* Hodjat ¶ 153. Furthermore, contrary to Appellants' argument that the interaction agent provides the interface, paragraph 138 of Hodjat, which is cited by Appellants, discloses that the content displayed "lies with the back-end applications and services" and "in most cases the interaction agent 110 will format and present the content in a usable manner forthe form factor of the particular device." *See* Reply Br. 4 (citing Hodjat ¶ 138).

We also are not persuaded by Appellants' argument that Hodjat fails to disclose that the interface is not displayed while the natural language input is received, as required by the disputed limitations of claim 1. App. Br. 15. The Examiner finds, and we agree, this limitation is disclosed in Fig. 10 of Hodjat because it depicts in block 1010 that "user enters user input" and, after the system interprets the language (as in block 1012) and the system issues a command to an application based on the interpretation of the input (as in block 1014), the "system presents GUI page based on current interpretation" (as in block 1016). That is, the interface of the application

"is not displayed while the natural language input is received," but only after it is received, interpreted, and a command is issued to invoke an application and display the interface for the application.[4]

For these reasons, we find a preponderance of the evidence supports the Examiner's findings that Hodjat discloses the disputed limitations of claim 1. Accordingly, we are not persuaded the Examiner erred in finding that Hodjat anticipates claim 1 under 35 U.S.C. § 102(b), and we sustain the Examiner's rejection of claim 1. For the same reasons, we sustain the Examiner's rejections of independent claims 11 and 20, as well as dependent claims 3, 8, 10, 14–16, 18, 19, 21, and 31.

Rejection of Claim 9 under § 102(b)

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[4] We note the limitation "an interface . . . is not displayed while the natural language input is received" is a negative limitation that was not included in the originally filed claims (*see* Spec. 32–37), but was added by amendment during prosecution. Appellants have failed to identify in the Specification any description of a reason to not display the interface while the natural language input is received. In the event of further prosecution of this application, we leave it to the Examiner to consider whether claims 1, 11, and 20 should be rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement under *Santarus, Inc. v. Par Pharmaceutical, Inc.,* 694 F.3d 1344, 1351 (Fed. Cir. 2012) ("Negative claim limitations are adequately supported when the specification describes a reason to exclude the relevant limitation. Such written description support need not rise to the level of disclaimer. In fact, it is possible for the patentee to support both the inclusion and exclusion of the same material."). *See also* MPEP § 2173.05(i) ("Any negative limitation or exclusionary proviso must have basis in the original disclosure. . . . The mere absence of a positive recitation is not basis for an exclusion."). Although the Board is authorized to reject claims under 37 C.F.R. § 41.50(b), no inference should be drawn when the Board elects not to do so. *See* MPEP § 1213.02.

Appellants contend Hodjat fails to disclose "providing a shortcut command comprising *a stored sequence of device inputs* performed in the at least one application *prior to receiving the natural language input*," as recited in claim 9. App. Br. 17–19 (emphasis added). The Examiner finds the disputed limitations of claim 9 are disclosed by paragraph 153 of Hodjat:

> Furthermore, referring to paragraph [0153] of Hodjat, a shortcut corresponding to 'map John Smith's address' has an associated sequence of device inputs corresponding at least to the sequential input of an address and subsequent submission of the address into the mapping application.

Ans. 23.

Appellants' arguments regarding the disclosure of the shortcut or hint "map John Smith's address" in paragraph 153 of Hodjat are conclusory and, therefore, not persuasive. *See* App. Br. 18–19. In the Reply Brief, Appellants do not address the Examiner's findings regarding claim 9. Thus, we agree with the Examiner's findings that paragraph 153 of Hodjat discloses the disputed limitations of claim 9, and we sustain the Examiner's rejection of claim 9 for anticipation under § 102(b).

Rejection of Claim 27 under § 102(b)

Appellants contend Hodjat fails to disclose the limitation "wherein the at least one application is not being executed while the natural language input is received," as recited in claim 27. App. Br. 19–21; Reply Br. 8–10. In particular, Appellants argue paragraph 146 of Hodjat "obliquely references back-end applications without describing ***whether these back-end applications are executed*** when inputs are received by Hodjat's interface." App. Br. at 19. Appellants also argue that, even if the Examiner's construction of claim 27 in the Answer is proper, the disclosure in paragraph 146 of Hodjat of forwarding commands to a back-end application "suggests

that the back-end application is running a program or carrying out an instruction (*i.e.*, that the back-end application is 'executing')." Reply Br. 9.

We are not persuaded by Appellants' arguments. First, for the reasons stated by the Examiner, we agree with the Examiner's conclusion that the term "being executed" is broadly and reasonably interpreted to mean "to carry out (an instruction in a program)." Ans. 24. Second, the Examiner finds that, based on this interpretation of "being executed," paragraph 146 discloses the disputed limitation. Ans. 24. Paragraph 146 of Hodjat discloses that, after the user's input has been received, "the form is forwarded to the back-end application as a command." Thus, the Examiner finds, and we agree, Hodjat discloses the back-end applications "are not active or executing until they are called upon to carry out an instruction, such as by receiving a command interpreted from the natural language input, *after* the natural language input has been received." *Id.*

Accordingly, we agree with the Examiner's finding that Hodjat discloses the limitation "wherein the at least one application is not being executed while the natural language input is received,"[5] as recited in claim

[5] We note this limitation is a negative limitation that was not included in the originally filed claims (s*ee* Spec. 32–37), but was added by amendment during prosecution. Appellants have failed to identify in the Specification any description of a reason to not execute the application while the natural language input is received. In the event of further prosecution of this application, we leave it to the Examiner to consider whether claim 27 should be rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement under *Santarus, Inc. v. Par Pharmaceutical, Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012) ("Negative claim limitations are adequately supported when the specification describes a reason to exclude the relevant limitation. Such written description support

27, and therefore, we sustain the Examiner's rejection of claim 27 for anticipation under § 102(b).

Rejection of Claims 5, 12, and 22 under § 103(a)

Appellants note claim 5[6] recites that "the at least one application [identified by evaluating the natural language input] is not installed on the device" and that "invoking the at least one application further comprises . . . executing the at least one application at the device subsequent to downloading the at least one application to perform the at least one suggested command." App. Br. 21. The Examiner rejected claim 5 under § 103(a) based on the combination of Hodjat and Kennewick and relies on Kennewick as teaching or suggesting these limitations. *See* Final Act. 9–11. Appellants contend this constitutes reversible error "because the combination would both change the principle of operation of the invention disclosed in Hodjat and render the system disclosed in Hodjat inoperable for its intended purpose." App. Br. 23–24; Reply Br. 10–13. In particular, Appellants argue Hodjat "operates by using a single interaction agent on a user device to interact with multiple back-end applications" and "[c]ombining Hodjat with Kennewick would therefore change Hodjat's

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need not rise to the level of disclaimer. In fact, it is possible for the patentee to support both the inclusion and exclusion of the same material."). *See also* MPEP § 2173.05(i) ("Any negative limitation or exclusionary proviso must have basis in the original disclosure. . . . The mere absence of a positive recitation is not basis for an exclusion."). Although the Board is authorized to reject claims under 37 C.F.R. § 41.50(b), no inference should be drawn when the Board elects not to do so. *See* MPEP § 1213.02.

[6] We decide the rejection of claims 5, 12, and 22 which are rejected under the second-stated ground of rejection, on the basis of representative claim 5. *See* 37 C.F.R. § 41.37(c)(1)(iv).

principle of operation from relying on a ***network of distributed agents for*** interpreting natural language input for controlling ***back-end applications*** to relying on ***locally executed*** programs for interpreting and responding to natural language input." App. Br. 23–24.

We are not persuaded by Appellants' arguments. First, Appellants' arguments regarding changing the principle of Hodjat and rendering it inoperable for its intended purpose are not persuasive because they presume a bodily incorporation of the features of Kennewick into the structure of Hodjat, which is not the proper standard under 35 U.S.C. § 103(a). "[A] determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements." *In re Mouttet*, 686 F. 3d 1322, 1332 (Fed. Cir. 2012) (citations omitted). Nor is the test for obviousness whether a secondary reference's features can be bodily incorporated into the structure of the primary reference. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *Id.*

Second, Appellants have not provided persuasive evidence or arguments that combining Kennewick with Hodjat would render Hodjat inoperable or actually change the principle of operation of Hodjat, as opposed to simply providing additional data sources to the back-end applications of Hodjat to fulfill natural language inputs. In that regard, the Examiner finds, and we agree, as follows:

> Kennewick also discloses that depending on the nature of natural language input, there may not be a simple set of queries returning an adequate response and several queries may need to be initiated, chained, or concatenated to achieve a complete

> result, wherein no single available source may include the entire set of results requires and, thus, multiple queries, perhaps with several parts, may need to be made to multiple data sources, which can be both local or on a network (Kennewick; column 2, lines 13–22).

See Final Act. 10; Ans. 26.

In the Answer, the Examiner follows the above quoted language with the finding that "this suggestion of accessing remote data sources to fulfill natural language commands would have been desirable by Hodjat, who desires to improve effectiveness of natural language user interaction (Hodjat; [0002])." Ans. 26. We agree with this finding and that it supports combining Kennewick with Hodjat to teach or suggest the limitations of claim 5 because it teaches or at least suggests "invoking the at least one application further comprises . . . executing the at least one application at the device subsequent to downloading the at least one application to perform the at least one suggested command." Appellants' argument that the Examiner's finding suggests relying "on ***remote*** data sources to fulfill commands," rather than downloading an application, is based on a misinterpretation of the Examiner's finding. *See* Reply Br. 12.

Thus, we are not persuaded the Examiner erred by combining the teachings of Kennewick with Hodjat or in finding that the combined teachings of these references would have rendered the subject matter of claim 5 obvious under § 103(a). Thus, we sustain the Examiner's rejection of claim 5, as well as the rejection of claims 12, and 22.

Rejection of Claim 17 under § 103(a)

Claim 17 is rejected under the third-stated ground of rejection above for obviousness over Hodjat and Gurram. Appellants argue the rejection of claim 17 should be reversed because it depends from independent claim 11,

which Appellants argue is allowable for the reasons discussed regarding claim 1. App. Br. 25. Because we have sustained the Examiner's rejection of claim 1, as well as claim 11, for the reasons discussed *supra*, we also sustain the Examiner's rejection of claim 17.

Rejection of Claims 23, 24, and 30 under § 103(a)

Claims 23, 24, and 30 are rejected for obviousness over Hodjat and Johnson. Appellants argue the rejection of claims 23 and 24 should be reversed because they depend from independent claim 20, which Appellants argue is allowable for the reasons discussed regarding claim 1. App. Br. 26. Because we have sustained the Examiner's rejection of claim 20 for the reasons discussed *supra*, we also sustain the Examiner's rejection of claims 23 and 24.

Appellants argue claim 30 is allowable because it depends from allowable claim 1. *Id.* Appellants also argue the combination of Hodjat and Johnson fails to teach or suggest the following emphasized limitations of claim 30:

> ***. . . copying data from at least one additional application to a clipboard function*** accessible by ***the assistant application, the at least one application, and at least one additional application,*** wherein the data ***is selected using at least one additional interface provided by the at least one additional application;***
>
> determining, in response to receipt of the natural language input, ***a suggested parameter value from the data*** stored by the clipboard function; and
>
> . . . wherein invoking the at least one application further comprises ***performing the at least one suggested command using the suggested parameter value.***

App. Br. 26–28.

Appellants also argue "Johnson's only reference to a clipboard feature clearly disparages the use of such a feature." App. Br. 28 (citing Johnson col. 4. ll. 21–29).

We are not persuaded by Appellants' arguments that the Examiner has erred. Appellants' arguments are not persuasive because, as the Examiner finds, they attack the references individually, whereas the Examiner's rejection is based on the combined teachings of Hodjat and Johnson. *See* Final Act. 13; Ans. 2. Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references. *In re Merck & Co. Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). The relevant inquiry is whether the claimed subject matter would have been obvious to those of ordinary skill in the art in light of the combined teachings of the references. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Here, the Examiner finds, and we agree, Hodjat teaches "determining, in response to receipt of the natural language input, a suggested parameter value from the data" (Final Act. 13, citing Hodjat ¶ 146) and "providing the suggested parameter value in the output with the at least one suggested command, wherein invoking the at least one application further comprises performing the at least one suggested command using the suggested parameter value." Final Act. 13 (citing Hodjat ¶¶ 35, 36 ("wherein [0035] describes identifying prepositions in relation to surrounding natural language input in order to contextually determine the intention of the language including such as types of parameter values like city name or days of a week" and "wherein [0036] describes that 'the system 100 interprets the user's intent and generates the specific signals

and syntax required by the back end application to effect that intent.")). The Examiner also finds, and we agree, Johnson discloses

> the well-known use of clipboard functions to copy and paste information within analogous prior art of natural language interfaces, which corresponds to the claim language of *prior to receiving natural language input, copying data from at least one additional application to a clipboard function accessible by an assistant application, the at least one application, and at least one additional application, wherein the data is selected using at least one additional interface provided by the at least one additional application.*

Ans. 28 (citing Johnson col. 4, ll. 18–53); Final Act. 13.

The Examiner also finds that Hodjat teaches "context coming from 'recent history of prior interactions between the user and the system,' among other current context information. Information copied to a clipboard would have been obvious to one of ordinary skill in the art as corresponding to information of 'recent history of prior interactions between the user and the system.'" Ans. 29 (citing Hodjat ¶¶ 149, 150). The Examiner further finds:

> Therefore, because Johnson's disclosure of information copied to a clipboard would have been interpreted by one of ordinary skill in the art as obviously corresponding to a form of information of "recent history of prior interactions between the user and the system," Johnson's disclosure does not disparage the use of clipboard information in ways such as other information of "recent history of prior interactions between the user and the system," as disclosed by Hodjat. In other words, it would have been obvious to one of ordinary skill in the art at the time of invention to enable the device of Hodjat to have copy and paste functionality and, therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to contextually use such copy and paste information, because by the nature of a clipboard that is well known to only contain recently copied information, anything still copied onto the clipboard would be

> considered a "recent history of prior interactions between the user and the system."

Ans. 29.

Thus, based on the Examiner's foregoing findings and reasons, we agree with the Examiner's (1) findings that the combination of Hodjat and Johnson teaches or suggests the disputed limitations of claim 30 and (2) conclusion that claim 30 would have been rendered obvious under § 103(a) based on the combined teachings of Hodjat and Johnson. Accordingly, we sustain the Examiner's rejection of claim 30.

Rejection of Claim 26 under § 103(a)

Claim 26 is rejected under the fifth-stated ground of rejection above for obviousness over Hodjat and Garcia. Appellants argue the rejection of claim 26 should be reversed because it depends from independent claim 1, which Appellants argue is allowable for the reasons discussed regarding claim 1. App. Br. 28. Because we have sustained the Examiner's rejection of claim 1 for the reasons discussed *supra*, we also sustain the Examiner's rejection of claim 26.

Rejection of Claims 28 and 29 under § 103(a)

Appellants argue the relevant language of claims 28 and 29 includes:

> 28. The method of claim 27, further comprising, prior to providing the output, excluding, by the assistant application, ***at least some commands from a subset of suggested commands***
>
> . . .
>
> 29. The method of claim 28, wherein excluding the at least some commands . . . comprises: determining weights associated with each of the subset of suggested commands ***based on previous selections of the respective command;*** and ***excluding the at least some commands based on the at least some***

> ***commands having a lower weight*** than non-excluded commands.

App. Br. 32.

Appellants contend the rejection of these claims should be reversed because (1) they depend form allowable base claims, (2) the Examiner's rationale does not explain why a person of ordinary skill in the art would combine the teachings of Hodjat and Chakrabarti, and (3) the combination of Hodjat and Chakrabarti does not teach the invention of claim 29. *See* App. Br. 29–36.

Regarding Appellants' first contention, we are not persuaded of Examiner error because, for the reasons discussed *supra*, we have sustained the Examiner's rejection of claim 1, from which claims 28 and 29 ultimately depend.

Regarding Appellants' third contention, Appellants argue "Chakrabarti's only disclosures with respect to using weights in a recommendation algorithm fail to teach excluding recommended items based on the weights, let alone excluding at least some suggested commands using weights that are based on previous selections of the excluded commands, as required by claim 29." App. Br. 32–33. Regarding Appellants' second contention, Appellants argue the Examiner failed to articulate or explain a reason that would have prompted a person or ordinary skill to combine elements as in claims 28 and 29. *Id.* at 33–36.

We are not persuaded by Appellants' arguments. Instead, regarding Appellants' third contention, we agree with the Examiner's finding that:

> Furthermore, referring to column 5, line 40 – column 6, line 31 of Chakrabarti, the step of identifying candidate items that further "includes discarding items having candidate scores below

> a threshold" sufficiently corresponds to excluding items having weights below a threshold, because a score may be considered a form of a weight.

Ans. 31 (*see also* Final Act. 14–15).

In regard to Appellants' second contention, the Examiner finds:

> In this case, Hodjat, in paragraphs [0142]-[0152], describes the desire to provide suggestions to the user, based on context. Furthermore, Hodjat discloses the desire to improve upon techniques for suggesting contextually relevant information to a user (Hodjat; [0002]). Therefore, Hodjat would appreciate Chakrabarti's teaching for improving techniques for suggesting contextually relevant information to a user, because Chakrabarti discloses that present systems for providing suggestions of data in an interface are deficient in that they ordinarily seek to only suggest the 'best' matches, to the exclusion of other information that may still represent a good match and that it would be beneficial to one of ordinary skill in the art to be able to more effectively give weight to differing information of differing relevance (Chakrabarti; column 1, lines 41-54). Therefore, Hodjat would greatly appreciate such improved methods pertaining to contextual suggestions, as provided by Chakrabarti. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Hodjat and Chakrabarti.

Id. at 32–33.

Thus, contrary to Appellants' arguments, we find the Examiner provides sufficient articulated reasoning having a rational underpinning, such that a person of ordinary skill in the art would have been motivated to combine the teachings of Hodjat and Chakrabarti, so as to render obvious the subject matter of claims 28 and 29. *See KSR Int'l Co. v. Teleflex Co.*, 550 U.S. 398, 418 (2007).

Based on the Examiner's findings and reasons set forth above, we find a preponderance of the evidence supports the Examiner's findings that the

combined teachings of Hodjat and Chakrabarti would have taught or suggested the disputed limitations of claims 28 and 29. Accordingly, we are not persuaded the Examiner erred in (1) finding the combined teachings of Hodjat and Chakrabarti teach or suggest the disputed limitations of claims 28 and 29 and (2) concluding that the combination of Hodjat and Chakrabarti renders the subject matter of claims 28 and 29 obvious under 35 U.S.C. § 103(a). Accordingly, we sustain the Examiner's rejection of claims 28 and 29.

DECISION

We affirm the Examiner's rejections of claims 1, 3, 8–11, 14–16, 18–21, 27, and 31 under 35 U.S.C. § 102(b).

We affirm the Examiner's rejections of claims 5, 12, 17, 22, 23, 24, 26, 28, 29, and 30 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED